

ROLLER-SHUTTER OPERATORS

The Centurion Systems industrial RSO range has been designed to safely automate extremely heavy roller-shutter doors such as entrances to factories and loading bays. There are six models available, each tailor-made to suit individual installation requirements.



Roller-shutter Operator Quick Selection Guide

Whatever your industrial automation requirements, this quick selection guide will help you choose the best operator for the job.



Technical Data	RS05R	RS05DC
Description	Full logic	Full logic; battery backup
Input voltage	220V - 240V AC	90V - 240V AC
Shutter mass – maximum	500kg	500kg
Shutter travel speed	140mm/sec	130mm/sec
Duty cycle	20%	35%
Daily operations – maximum ¹	200	350
Battery backup	-	✓
Can connect ancillary equipment, e.g. Safety Beams, access control components, etc. ²	✓	✓
Time-barring and automatic activation	-	✓
Onboard receiver	-	✓

¹ Over a 24 hour period

² For example, Safety Beams, Access Control Equipment



RS05	RS05R3P	RS05RE	RS09
Full logic	Basic; three-phase	Basic; Endurance	Heavy duty
220V - 240V AC	380V AC 3Ø	220V - 240V AC	380V AC 3Ø
500kg	500kg	500kg	900kg
100mm/sec	100mm/sec	74mm/sec	55mm/sec
20%	30%	40%	30%
200	320	430	320
-	-	-	-
✓	-	-	-
-	-	-	-
-	-	-	-



RSO Industrial Roller-Shutter Operators

Product Codes: RSO5R: RSO5R000V2; RSO5DC: RSO5DC000V1; RSO5: RSO50000V1; RSO5R3P: RSO5R3P0V1; RSO5RE: RSO5RE00V1; RSO9: RSO90000V1

The Centurion Systems industrial RSO range has been designed to safely automate extremely heavy roller-shutter doors such as those at entrances to factories and loading bays. There are six models available, each tailor-made to suit individual installation requirements.

Models Available

- RSO5R:** Ideal for sites requiring basic, reliable and cost-effective automation of shutters weighing up to 500kg.
- RSO5DC:** Incorporates an intelligent LCD controller and reliable battery backup for complete power failure autonomy. It can lift shutters weighing up to 500kg.
- RSO5:** This model utilises a powerful AC motor to lift shutters weighing up to 500kg. A multifaceted interface board allows for the connection of safety beams, radio receivers, keypads, proximity access systems, etc.
- RSO5R3P:** A powerful 380V, three-phase operator capable of delivering greater starting thrust and also boasts increased duty cycle, for shutters weighing up to 500kg.
- RSO5RE:** An endurance model ideal for high-volume automation of shutters weighing up to 500kg. The vastly improved duty cycle and high number of possible daily operations are made possible by a ventilated planetary gearbox.
- RSO9:** A heavy-duty model utilising a 380V, three-phase power supply enabling it to lift very heavy shutters weighing up to 900kg.

Main Features

- Automate heavy roller-shutters; e.g. at entrances to factories, shops and warehouses
- Rock-solid mounting system
- Convenient manual operation
- The RSO5DC model incorporates full battery backup and an LCD interface
- Feature-rich and basic, cost-effective models available
- Safe and reliable position control
- Allows for the connection of safety devices and ancillary equipment ²
- Integrated ChronoGuard timer functionality (a world first) ³
- Onboard CENTURION code-hopping multichannel receiver with selective add and delete ³
- Intruder-detection Alarm Modes (a world first) ³
 1. +/-10%
 2. RSO5, RSO5R and RSO5DC only
 3. RSO5DC only

Technical Specifications

Technical Data	RSO5R	RSO5DC	RSO5	RSO5R3P	RSO5RE	RSO9
Input voltage	220V - 240V AC, 50Hz	90V - 240V AC, 50Hz	220V - 240V AC, 50Hz	380V AC 3Ø, 50Hz	220V - 240V AC, 50Hz	380V AC 3Ø, 50Hz
Weight	500kg	500kg	500kg	500kg	500kg	900kg
Motor voltage	230V AC	24V DC	230V AC	380V 3Ø	230V AC	380V 3Ø
Power	250W	220W	360W	360W	375W	550W
Motor speed	1780rpm	1440rpm	1780rpm	1780rpm	1780rpm	1780rpm
Door travel speed ¹	140mm/sec	130mm/sec	100mm/sec	100mm/sec	74mm/sec	45mm/sec
Current	3.5A 1Ø	4.6A 1Ø	3.7A 1Ø	1.5 - 2A 3Ø	3AØ	2.2A 3Ø
Duty cycle	20%	35%	20%	30%	40%	30%
Temperature protector	95°C	70°C	105°C	70°C	125°C	115°C
Output shaft rotation	53rpm	50rpm	35rpm	35rpm	28rpm	17rpm
Gear ratio	34:1	55:1	51:1	55:1	64:1	105:1
Gear transmission	Single-row oblique gear	Double-row oblique gear	Single-row oblique gear	Single-row oblique gear	Double-layer planetary gear	Double-layer oblique gear
Material of gearbox	Aluminium	Aluminium	Aluminium	Aluminium	Cast-iron	Aluminium
Drive type	Chain-driven	Chain-driven	Chain-driven	Chain-driven	Chain-driven	Chain-driven
Sprocket	9T	9T	9T	9T	9T	10T
Chain	5/8 inch	5/8 inch	5/8 inch	5/8 inch	5/8 inch	1 inch
Length	540mm	450mm	570mm	500mm	530mm	600mm
Net weight	12.7kg	9.64kg	12.8kg	12.8kg	20.2kg	22.1kg
Gross weight	13.5kg	10.4kg	13.5kg	13.5kg	21kg	23.0kg
Packing dimensions	Width: 260mm x Depth: 200mm x Height: 540mm	Width: 265mm x Depth: 210mm x Height: 570mm	Width: 265mm x Depth: 210mm x Height: 570mm	Width: 265mm x Depth: 210mm x Height: 570mm	Width: 260mm x Depth: 200mm x Height: 665mm	Width: 345mm x Depth: 285mm x Height: 600mm

^{1.} +/-10%



**INDUSTRIAL
ROLLER-SHUTTER
OPERATORS**

RSO

Industrial Roller-Shutter Automation

Product Codes: RSO5R: RSO5R000V2; RSO5DC: RSO5DC00V1; RSO5: RSO50000V1; RSO5R3P: RSO5R3P0V1; RSO5RE: RSO5RE00V1; RSO9: RSO90000V1

Technical Specifications

Features and Functionality	RSO5R	RSO5DC	RSO5	RSO5R3P	RSO5RE	RSO9
Maximum shutter weight	500kg	500kg	500kg	500kg	500kg	900kg
Battery backup	-	✓	-	-	-	-
Integrated Wall Switch	✓	Uses D-Series controller	✓	✓	✓	✓
Manual override facility	✓	✓	✓	✓	✓	✓
Hand chain	✓	✓	✓	✓	✓	✓
Safety Beam input	✓	✓	✓	-	-	-
Input for ancillary devices, e.g. keypads, pushbuttons, etc.	✓	✓	✓	-	-	-
Pillar Light input	-	✓	-	-	-	-
Autoclose	✓	✓	✓	-	-	-
Onboard receiver	-	✓	-	-	-	-
ChronoGuard timer	-	✓	-	-	-	-
Modes of Operation	Standard, Open Only, Close Only	Standard, Condo, PIRAC, PLC, Deadman, Reversing	Standard, Open Only, Close Only	NA	NA	NA
Local test button	✓	✓	✓	-	-	-
Position control	2 x N/C Micro switches with safety limit	2 x N/O Micro switches	2 x N/C Micro switches with safety limit	2 x N/C Micro switches	2 x N/C Micro switches	2 x N/C Micro switches

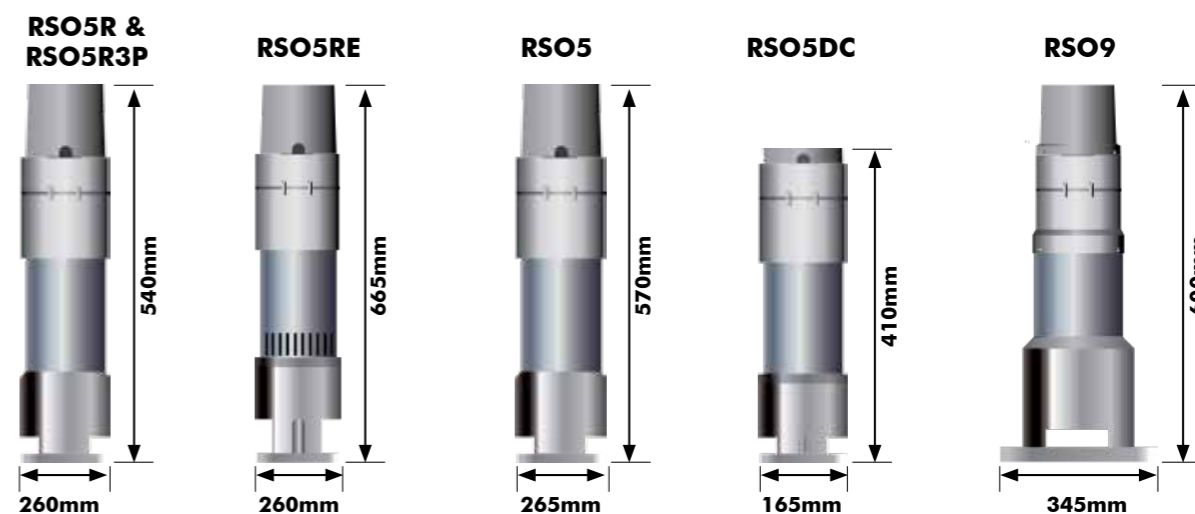
RSO Kits

Kit Components	RSO5R	RSO5DC	RSO5	RSO5R3P	RSO5RE	RSO9
Product code	RSO5R_FKIT	RSO5DC_FKIT	RSO50_FKIT	RSO5R3P_FKIT	RSO5RE_FKIT	RSO90_FKIT
Operator	✓	✓	✓	✓	✓	✓
Sprocket	✓	✓	✓	✓	✓	✓
Drive chain	✓	✓	✓	✓	✓	✓
Taper bush	✓	✓	✓	✓	✓	✓
Integrated Wall Switch	✓	Intelligent LCD controller	✓	✓	✓	✓
Foundation plate	✓	✓	✓	✓	✓	✓
Backup battery and wallbox	-	✓	-	-	-	-

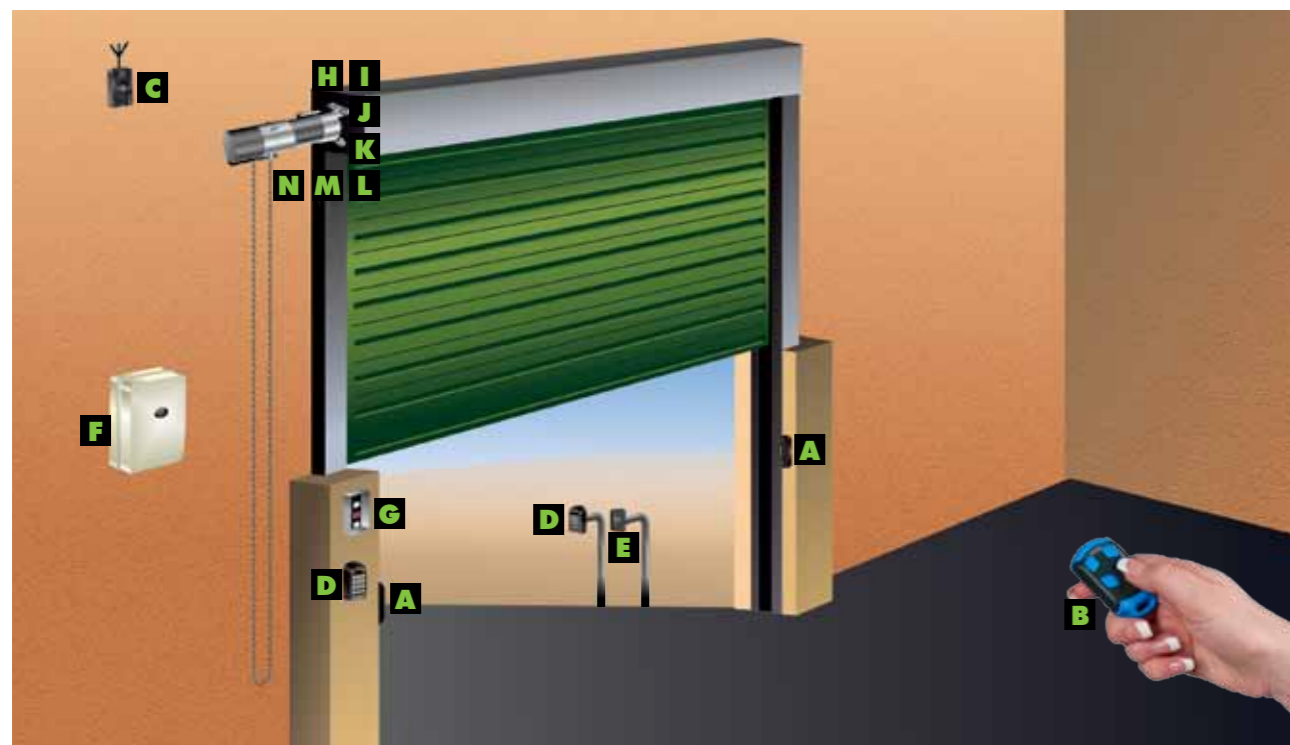


Cabling Requirements

- 220V - 240V AC mains cable (3 core LNE 1.5mm² SWA) ¹
 - Cable for Wall Switch (supplied)
 - Optional but recommended infrared Safety Beams (3 core 0.5mm² multi-stranded) ²
 - Radio receiver cable (3 core 0.5mm² multi-stranded) ²
 - Optional keypad or proximity access control reader (3 core 0.5mm² multi-stranded) ²
- ¹ 380V AC 3Ø for three-phase models
² Applies to RSO5, RSO5R and RSO5DC only



Roller-shutter Operators Accessories



A. Photon Infrared Safety Beams

Product Code: **PHOTONV1**



Always recommended on any automation installation to increase the safety of the automated system.

B. CENTURION Transmitter

Product Code: One-button: **TX1NV2433**; Two-button: **TX2NV433**;
Three-button: **TX3NV2433**; Four-button: **TX4NV2433**



Incorporates ultra-secure code-hopping technology. Available in one-, two-, three- and four-button variants.

C. G-SWITCH-22 GSM Device

Product Code: **G5WITCH0V3**



Allows for monitoring and activating the operator, via your phone, from anywhere.

D. SMARTGUARD or SMARTGUARDair Keypad

Product Code: **SMARTGUARD: SK/1BLK**; **SMARTGUARDair: SK/AIRBLK**



Cost-effective and versatile wired or wireless keypads, allowing access for pedestrians.

E. SOLO/Lattice Proximity Access Control

Product Code: SOLO: **SOLO0001V1**; Lattice Controller: **LATC0003V1**



Proximity reader for allowing access for both pedestrians and vehicles offering a higher level of security than the keypad.

F. RSO Wallbox

Product Code: **RSODC1CTR1**



A fully weatherproof wall-mounted enclosure for your RSO5DC operator's electronics, providing a neat and convenient central point of operation.

G. Lockable Box for Wall Switch

Product Code: **RSOPBBOX01**



A stylish, lockable stainless steel enclosure for the RSO Wall Switch to increase the security of the system by preventing unauthorised use of the pushbutton controls.

H. RSO5, RSO5R, RSO5RE, RSO5R3P AND RSO5DC Drive Chain

Product Code: **RSO5CHAIN1**



Drive chain with a pitch of 5/8th of an inch for use with the RSO5, RSO5R, RSO5RE, RSO5R3P and RSO5DC models.

I. RSO9 Drive Chain

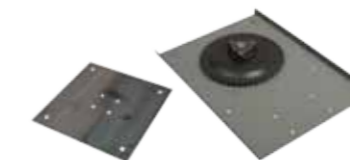
Product Code: **RSO9CHAIN1**



Drive chain with a pitch of 1 inch for use with the RSO9 model.

J. Shutter Bracket

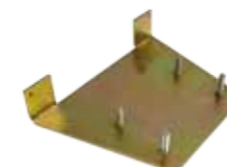
Product Code: **RSOBRK0001**



This innovative 400mm bracket can be used to prepare doors for future automation while they are being manufactured.

K. RSO5R, RSO5, RSO5DC, RSO5R3P and RSO5RE Mounting Plate

Product Code: **RSOBRK0002**



A sturdy foundation plate used for mounting the RSO5R, RSO5, RSO5DC, RSO5R3P and RSO5RE models.

L. RSO9 Mounting Plate

Product Code: **RSO9BRK0003**



An exceptionally hardy foundation plate used for mounting the RSO9 industrial roller-shutter operator.

M. RSO Sprocket

Product Code: **RSOSPRCK1 / RSO9SPRCK1**



Fits onto the door shaft and engages with the RSO pinion to drive the curtain. Available for the RSO5R, RSO5, RSO5DC, RSO5R3P and RSO5RE models (Product Code: **RSOSPRCK1**) as well as for the RSO9 (Product Code: **RSO9SPRCK1**).

N. RSO Taper Lock Bush

Product Code: **TLB30V1 / TLB35V1**



The taper lock bush is used to secure the RSO sprocket to the curtain's shaft. Available in two sizes to suit the majority of industrial roller-shutters: 30mm (Product Code: **TLB30V1**) and 35mm (Product Code: **TLB35V1**).

Roller-Shutter Operator Kits

RSO5 500kg Operator Kit

Product Code: **RSO50_FKIT**

- 1 x RSO5 operator **3**
- 1 x Sprocket **A**
- 1 x Drive chain **B**
- 1 x RSO lock taper bush **C**
- 1 x Wall Switch **D**
- 1 x Mounting plate **E**

RSO5RE 500kg Operator Kit

Product Code: **RSO5RE_FKIT**

- 1 x RSO5RE operator **2**
- 1 x Sprocket **A**
- 1 x Drive chain **B**
- 1 x RSO lock taper bush **C**
- 1 x Wall Switch **D**
- 1 x Mounting plate **E**

RSO5DC 500kg Operator Kit

Product Code: **RSO5DCKIT**

- 1 x RSO5DC operator **4**
- 1 x Sprocket **A**
- 1 x Drive chain **B**
- 1 x RSO lock taper bush **C**
- 1 x Wall Switch **D**
- 1 x Wall box **G**
- 2 x 7Ah battery **H**
- 1 x Mounting plate **E**

RSO5R 500kg Operator Kit

Product Code: **RSO5R_FKIT**

- 1 x RSO5R operator **1**
- 1 x Sprocket **A**
- 1 x Drive chain **B**
- 1 x RSO lock taper bush **C**
- 1 x Wall Switch **D**
- 1 x Mounting plate **E**

RSO5R3P 500kg Operator Kit

Product Code: **RSO5R3P_FKIT**

- 1 x RSO5R3P operator **1**
- 1 x Sprocket **A**
- 1 x Drive chain **B**
- 1 x RSO lock taper bush **C**
- 1 x Wall Switch **D**
- 1 x Mounting plate **E**

RSO9 900kg Operator Kit

Product Code: **RSO90_FKIT**

- 1 x RSO9 operator **5**
- 1 x Sprocket **A**
- 1 x Drive chain **B**
- 1 x RSO lock taper bush **C**
- 1 x Wall Switch **D**
- 1 x Mounting plate **E**



1
RSO5R & RSO5R3P



2
RSO5RE



3
RSO5



4
RSO5DC



5
RSO9



A
Sprocket Assembly



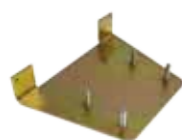
B
Drive Chain



C
RSO Lock Taper Bush



D
Wall Switch



E
Mounting Plate



F
Mounting Plate



G
Wallbox



H
7Ah Battery

www.CentSys.com

FRIENDS, Rohmans, Countrymen...



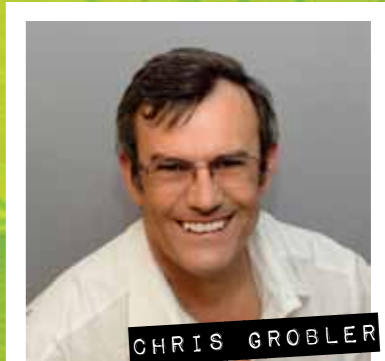
WERNER MARITZ

I know I'm still kind of new, but there is something that is noticed by everyone that's dealt with CENTURION in any way. CENTURION has the friendliest staff! From high upstairs, down to the very bottom. Everyone in CENTURION is always friendly and always willing to help, regardless of who you are. I can't see myself working at any other company.



GRANT RENS

For an Engineer to work in an environment where we research and design products to be as good as and even better than anything else in the world, using the latest technology is a great privilege, as opposed to so many environments where people (and Engineers) merely sell on unoriginal badly designed products from other parts of the world. For me that's part of what makes this job and CENTURION great!



CHRIS GROBLER

What I like about working for Centurion Systems is the opportunities to be an ambassador for CENTURION, when I do training in all different places. The feedback, regarding our products and company, motivates me. If the clients speak with praise about CENTURION, it is a symptom of being a great company.

CENTURION is a dynamic environment to work in. I'm surrounded by talented, creative and inspiring people - right from the directors and across the entire spectrum of staff. There is almost always a vibe and we feed off each other's energy. We also get the opportunity to be involved in new product development. There are actual products out there that I've helped name! We're changing the world. What a privilege!

ADAM BUTCHART

What I like most about CENTURION is how management truly invests in each and every one of us, actively spot potential and create countless opportunities for self-betterment.



LINDSAY SOUTHGATE

The inspiration given in order to grow oneself within the company. The guidance and appreciation shown by each director, manager and colleagues after doing a job well done! Kindness shown after going through a difficult time professionally or personally. The ability to speak one's mind and the understanding shown from it.



CHARL MIJNHARDT



MARTHA SIMONS

We have a lot of benefits and the employers went the extra mile by paying us profit share. We employees are given opportunities to raise our concerns about anything. We are also told how the company is doing every month.



PAULINAH MNTABMO

I came looking for a job and I found this right company with many benefits. They look after us - I love coming to work! The company also gives us company branded clothes.